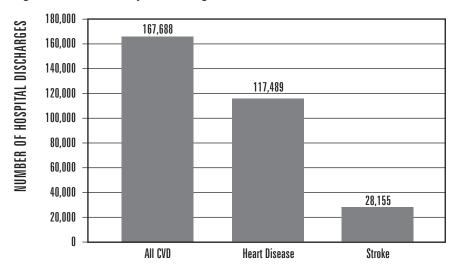
Morbidity, Disability, and Economic Impact Resulting from CVD

Mortality rates are just one part of the impact CVD has on North Carolinians. CVD results in substantial morbidity and disability among North Carolinians and Americans, and has a large economic impact on the state, the nation, and their residents. Currently, 64.4 million Americans have some form of cardiovascular disease, including 13.2 million who have coronary heart disease and 4.8 million who have had a stroke.1 Each year 865,000 Americans have a new or recurrent heart attack and 700.000 have a new or recurrent stroke.1 Estimates from the N.C. Behavioral Risk Factor Surveillance System (BRFSS), a statewide telephone survey of non-institutionalized adults, indicate that more than 500,000 North Carolinians have a

Figure 8. Number of Hospital Discharges for DVD, North Carolina, 2000



Data Source: N.C. Hospital Discharge Database, State Center for Health Statistics.

history of either stroke, heart attack, or other coronary heart disease. Since it is likely that many more North Carolinians living in long-term care facilities also have a history of cardiovascular disease, this is probably an underestimate of the prevalence among North Carolinians. State hospital discharge data also shows the large burden of CVD. In 2000, there were 167,688 hospitalizations in the

state for all CVD (discharge rate: 2,083 per 100,000 population), 117,489 for heart disease (rate: 1,460 per 100,000 population), and 28,155 for stroke (rate: 350 per 100,000 population).

Cardiovascular diseases are major causes of disability as well. About 66% of heart attack patients do not make a complete recovery, and in fact coronary heart disease is the leading cause of premature, permanent disability among the U.S. labor force, accounting for 19% of Social Security Administration disability allowances.1 Those who survive a heart attack remain at high risk for developing heart failure as a result of their damaged or impaired heart muscle. The heart of a person with heart failure is incapable of pumping enough blood to meet the demands of more than modest activity, often resulting in serious disability. Of those who have had a heart attack, about 22% of men and 46% of women will develop disability due to heart failure within six years after the heart attack.1 Stroke is also a leading cause of serious, long-term disability in the United States. A stroke can result in loss of physical and cognitive functions, inability to care for one's self, inability to communicate, and a need for ongoing care. In 1999, more than 1.1 million Americans reported having a disability, such as functional limitations or difficulty carrying out activities of daily living, as the result of a stroke.14

The mortality, morbidity, and disability caused by cardiovascular diseases also have a large economic impact in terms of both direct and indirect costs. Direct costs are those associated with hospital care, physician and nursing services, and medications. Indirect costs include lost productivity due to morbidity and mortality, and are more difficult to estimate. Both heart disease and stroke have the potential to accrue tremendous indirect costs as both are major causes of loss of function, the ability to live inde-